THE UNIVERSITY OF NORTH CAROLINA
LIBRARY OF
THE WOMAN'S COLLEGE OF
GREENSBORO, N. C.

THE LABAN ART OF MOVEMENT GUILD MAGAZINE

SPECIAL COMMEMORATIVE NUMBER
MAY, 1959.

[No. 22]

KAMIN DANCE BOOKSHOP
68 West 55th Street
New York 19, N. Y. — Circle 5-7955

OFFICERS OF THE GUILD

President:

LISA ULLMANN

Vice-President:

F. C. LAWRENCE

Chairman:

SYLVIA BODMER

COUNCIL MEMBERS

Professional Members:

Marjorie Bergin
Frank Culver
Elsie Palmer
Joan Russell
Gladys Stevens

Non-Professional Members:

Jane Bacon
Walter Bodmer
Chloe Gardner
Joy Howard

Hon. Secretaries:

DOROTHY HORNBY and JOAN HEATH
3, Rutland Gardens,
West Ealing,
London, W.13.
Telephone: ALPerton 2585

Hon. Treasurer:

C. D. ELLIS
19, East Sheen Avenue,
London, S.W.14

Membership Committee:

S. Bodmer
E. Palmer
L. Primrose
J. Russell
L. Ullmann

Publications Committee:

M. Bergin (Editor)
W. Bodmer
D. G. Hubbard
J. Leedham-Green

CONTENTS

	Page
Officers of the Guild	*Inside front cover*
Photograph of Rudolf Laban, June 1954	2
Editorial	3
The Importance of Dancing	5
The Educational and Therapeutic Value of Dance	18
Meaning	22
Symbol	25
The Aesthetic Approach to the Art of Dancing	29
Dance as a Discipline	33
The Rhythm of Living Energy	40

© Copyright 1959 by the Laban Art of Movement Guild

Photo: Edwin Loeb

Rudolf Laban, June 1954.

EDITORIAL

In this special commemorative issue of the Mazagine we offer a selection of Mr. Laban's hitherto unpublished writings. We hesitate to describe this selection as "representative"; it could more accurately be termed a random sample. Indeed, to make a selection which could justifiably be called representative would be, for several reasons, a well-nigh impossible task. In the first place such material could not be compressed into a magazine of this size; secondly, several years' work would be needed; and thirdly it would be impossible to do justice to the extent and complexity of the writer's thought. Mr. Laban wrote as freely as he thought; his thoughts flowed on to paper. He was never without pencil and paper on which in spare moments, on railway journeys or between classes or lectures he would jot down what he was thinking. Sometimes an almost completed article would result; at other times one would be begun, to be finished later, or perhaps to be discarded in favour of a different approach. Sometimes odd thoughts and random notes would be jotted down, and these too might later be developed into longer writings. Long before he came to England he had not only published a number of books, but had amassed a vast collection of unpublished writings, all of which were unfortunately destroyed during the Second World War.

At the Art of Movement Centre in Weybridge the innumerable compartments of the large filing cupboard which the Guild presented to Mr. Laban on his 75th birthday overflow with his writings in German and in English. Miss Ullmann, to whom Mr. Laban entrusted his writings, very kindly made these available to the Guild for this commemorative issue of the Magazine. It is from this source that the contents of this Magazine have been taken.

Although such a selection is bound to be arbitrary, it can nevertheless be called representative in so far as the articles highlight different facets of Mr. Laban's interests. "The Aesthetic Approach to the Art of Dancing," for example, is concerned with dancing and establishing a new form of dance. In "Meaning" and "Symbol" he attempts to define and clarify certain aspects of his work. Other articles are written to show the importance of the whole Art of Movement in its universal aspect, related not only to the Arts but also to Science and Psychology.

Although a certain amount of editing is inevitable, the articles have been altered as little as possible. All are as originally written by Mr. Laban; none is a finished article in the sense that it has been edited and polished by the writer himself. All but one were written in English. Mr. Laban himself was always extremely modest in his estimate of his ability to speak and write in English, but he greatly under-estimated, for he expresses himself not only fluently but with an original and vivid use of words which gives poetry and freshness to all that he writes.

The decision that this special commemorative issue of the Magazine should consist of Mr. Laban's own writings rather than of biography and articles about different aspects of his work was made for three main reasons. Firstly, the special Birthday number, published in December, 1954, took the latter form; secondly the May issue of the Magazine "The New Era" published by the New Education Fellowship is also along these lines;*and thirdly to the Guild which bears Mr. Laban's name falls the privilege of offering to its members this unique contribution of his own writings. We hope to be able to print further excerpts in future Magazines.

---

* *Copies of these are available to Guild members for 2s. post free, and may be obtained from Miss C. Gardner, Parkside, Hadley Common, Barnet, Herts.*

THE IMPORTANCE OF DANCING

(Read by Miss Ullmann at the Annual Conference, 1959, as the Laban Lecture)

At first glance the Doing and Dancing of man seem to be comparatively unimportant facts in the history of the world. For the life of men—of humanity in general—is in its duration and extent only a transient spark in the fire of the manifold manifestations of existence on our planet. There exist several milliards of living beings on earth, such as plants, microbes, insects, fishes and all the higher animals, and the number of men is very small.

It is true that doing and dancing are general characteristics of life, but life seems to be a relatively rare feature on earth as well as in the universe. In order to maintain themselves living beings are compelled to fill the greater part of their existence with Doings, not with Dancing, although they live in the midst of an overwhelming mass of non-living matter.

The whole mass of living matter on earth constitutes an extremely thin layer of mould on the surface of this tiny celestial grain of dust. Other more gigantic worlds show no signs of life at all. For we are told that none of the myriads of suns constituting the milky way and only very few of their planets offer the necessary conditions under which the development of this layer of living mould becomes possible.

On earth this mould consists for the most part of plants. When we see a deer in the forest or an insect in the grass, we become aware of the sparsity of animals amidst the relative abundance of vegetation. Plants are fixed in the soil; their growth, the flowering and producing of seeds and fruits, is their Doing. They cannot move or dance except in the involuntary bending and waving of their stems and branches in the wind. Often they twist the ends of their twigs towards the sunlight or towards water, but this is rather a growing, than a dancing.

But all the whirling, creeping, flying, swimming microbes and higher animals are gifted with the power of moving independently and they enjoy their gift for locomotion in two ways: in Doing and in Dancing. Besides the movements they make in the interest of self-preservation, they sometimes express their inner agitation in a way which man calls Dance. In the forests covering great districts of the globe, in the miraculous gardens at the bottom of the sea and in the midst of the fantastic clouds in the air we are amazed to see all kinds of animals carrying on their life work and on certain occasions obeying some mysterious compulsion to perform seemingly purposeless movements. We understand that an animal cannot exist without its life-sustaining Doing, but we are not yet able to explain this curious behaviour which we call Dance.

The extreme rarity of matter which possesses the capacity to grow, to multiply, and to make voluntary and involuntary movements, and the still greater rarity of the use of this gift for writing apparently meaningless shapes and rhythms in the air, stands in no proportion to the importance and deep significance which these two enigmatic extravagances of living creatures seem to have for themselves. Man likes to think that he has a role to play on earth which is the penetration of all kinds of mysteries through the activities of his mind. The mystery of his own doings awakens his curiosity earlier and more strongly than most of the other riddles of the universe. Dancing as a factor of social life is in reality a part of his doings and its elaboration marks in fact the first stages in the growth of any civilisation. In the course of its later development Dance as an Art form has become one of the rarest and most admired flowers of civilised life.

The rarity and distinction of man's power of developing his capacity of free movement into an art is comparable with the rarity in Nature of precious stones, of magnetic metals and of radioactive substances. The functioning of the human mind would not be what it is without the arts; and dance is the primary art of man.

Doing and Dancing have their common roots on one hand in the mobility of the body and on the other hand in the agitation of the mind. People reveal themselves in their special manner of Doing and Dancing mirroring in this way the trends of their consciousness, emotionalism and volition.

Doing is purposeful and may be understood as signifying all action by which practical aims are pursued. Doing is thus dis-

tinguished from Dancing in which the aims pursued appear to the great multitude of our contemporaries as superfluous, or at least of secondary importance. Dancing is not, however, unnecessary for the actual preservation of life, although it seems devoid of any practical purpose. But equally purposeless are all the other arts and spiritual endeavours, which we know today have actually originated from dancing. All these leisure activities, including the joyful play of children, are entirely inessential to the simple preservation of life, but they are essential in the recovery from the strain of doing.

The purposeful struggle of ordinary doing prevails in work. All our Doing in work with its exciting competition and its hazardous uncertainties and fancies has more than one trait in common with dancing and playing. Doing and Dancing have moreover a common instrument in the body, and a common medium in movement directed by thought and emotion.

The instrument of all human Doing and Dancing, the body, is constructed and functions in a similar way to an animal's body. There is even a certain similarity between the structure and function of an animal and a plant, otherwise we would not comprehend the latter as living beings. The cell-state of the body is a great cooperative of specialised cell-groups. Every living individual has to submit to the lawful order in which the natural functions of the cell groups evolve. It can be assumed that the natural laws which prevail in this communal life extend their influence far beyond the realm of purely physical and biological functions.

Man is proud of his unique position on the earth and in the universe. He likes to invest his achievements with a special glory. He is proud of the reasonableness and morality which he expresses in his Doings. The veneration of certain ideals, and the valuation of virtues find their expression in the different manifestations of the comprehensive Art of Movement. This to some people seems to be a very acceptable and sufficient excuse for Dancing. But is it more than an excuse, is it a real purpose? Beauty and gracefulness as well as heroic self-reliance play a great role in all the dances of man. Dances of love and devotion, Dances of intrepid warfare have adorned his early festivals.

Man takes it for granted that such symbolic representations in Dance of his inspired Doing have their source in the imagination of the mind. He is apt to forget that the cells constituting his body

which include his nerve-centres, show an astonishing sensibility and willingness in the performance of their special duties. All the beauty and courage manifesting themselves in man's doing and dancing could not appear without the co-operation and help of these small members of the bodily cell-state. The mind of man, or even that of the animal, cannot do better than follow the wonderful harmony pre-established in the natural function of the living creature. And this is also what happens in man's Doing and Dancing as long as he is able to understand and appreciate the biological factors of living. This understanding and appreciation does not result from intellectual knowledge only, because man has no direct insight into the functioning of the cell-state. It is another sort of awareness through which he becomes initiated into the mysterious traffic of life, and this awareness is based on the immediate functional experience of Doing and Dancing.

We may surmise that the cells are just as proud of their special job in the great co-operative of the cell-state as nervous cell-groups are of the role they play in the good functioning of the whole animal. In the same way the leader of a large community will be proud of the healthy functioning of the whole, yet each individual belonging to the community will also be proud of his personal achievements. The single cell seems to be as anxious to display his strength, cunning, and skill as the controlling cell-groups.

Nature succeeds in bringing about the necessary discipline and order in the cell-state, by creating an attitude of pride in well-ordered doing, which must be based on a certain awareness of an urge towards ideals existing in each single cell as well as in the central mind. Obviously there seems to be present already in the cellular world a long series of what might be called noble sentiments and endeavours. In the dramatic battles which these little creatures have to fight in order to defend their buildings and to secure the freedom necessary for the unhindered performance of their activities, we see a great many heroic actions, much self-sacrifice and mutual help, comparable with similar manifestations in man's social behaviour. We therefore cannot say that the central controlling mind has invented or monopolised any of these virtues or wisdoms. All the possible virtues and volitions exist, and are fulfilled in an exemplary way, in the life of cells. We could, of course, suppose that these noble tendencies are infiltrated from above; that is, the cells learn their pride-modesty, their

capacity to be social and energetic from the examples set and the advice given by the governing cell-groups; but alas, this illusion is revealed as such by the fact that the most anti-social mind often enjoys the most wonderfully harmonious and smoothly functioning cell life. Is it not more true that the anti-social governing cell-groups of a healthy and harmonious cell-state have failed to learn from their subordinates to distinguish right from wrong?

Taken all in all, we can say that the economy and organisation and, so to speak, the civilisation of the cell-state seems to run on much wiser and more circumspect lines than those on which most human beings develop. In particular, what seems to be a natural ethico-moral behaviour of a single cell appears to be socially more equilibrated than that of individuals living together.

In a community actions are unified by the existence of a common aim. The mysterious command which nature gives to living matter is that the existence of the whole must be maintained and if necessary be defended at any cost. Furthermore, nature endeavours to effect this with as little friction as possible. The special whims, the laziness and the lust of the single cells seem to be extinct in an organism when the functioning of the whole or of an important part of it is in danger. The immense regenerative power of the body manifested often without much intervention of the controlling mind can be explained in this way only.

Cells follow (there is no doubt about this) their own innate volition. They take, so to speak, personal decisions; we know that the controlling mind can influence them in some details of their functions. Yet the best intention and the occasional help given to them play a relatively small role in their decisions. In healing processes, for instance, we can tune them by drugs or eliminate them by operations, but the essential work must be done by the cells themselves. The Doing of single cell-groups and, therefore, also the radius of the will power of the individual cell is restricted to special tasks, but within the special field of their activities, they seem to function freely. When in the end they lose their courage and initiative, they are replaced by other cells and retire for a rest by means of which they are regenerated and reinvigorated. They are faithfully helped in this restoration by other cell-groups.

It is in these regenerative processes that the volition or the central consciousness of the controlling mind can best intervene. Not only when he receives the S.O.S. signal of some exhausted cells or

cell groups, but already before this happens, he can do much to prevent damage. The central control can insert in the time-table of external striving some rhythmical pauses. He can indulge in recreative forms of activity which assist the reposing and healing processes. The controlling mind becomes herewith something like a master of ceremonies of the cell-state. He will best perform the duties of this office in following nature, which provides, besides the recurring and alternating states of waking and sleeping, a great many rhythmical recurrences in the unfolding of life. To primitive man none of these rhythms seems to be as important as the alternating urge of Doing and Dancing.

Animals and savages are instinctively aware of the importance of this basic rhythmical necessity; so are children. But man with a highly civilised mind, as he refers to himself, very often neglects his duty as a master of ceremonies because he finds no meaning in and has no deeper knowledge of Dancing. Nor does he appreciate the importance of the other arts, which derive from the fundamental need of recovery. Sometimes he feels vaguely that the cells of his body ask for a sympathetic interplay and understanding between themselves and the artificially isolated majesty of his control power, but he lacks the modesty, love and vivid hilarity of the simple cell. He indulges in a proud and resentful hatred of his body and thus he also hates Dancing. When the connection between the mind and the cell-state of which he is a member is interrupted, the mind can no longer feel what is happening in the community tutored by him. In listening more carefully inside he would find that in Dancing as in Doing there exists a formidable order and common code of laws without which life becomes meaningless, if not evil. The mind could detect that these laws are given by nature and that he as controller-servant can do nothing but recognise and cultivate the pre-established harmony. He would see that the co-existence and co-relationship of the mind, striving after consciousness, and the basic urge of nature, creating the tangible existence of the body, cannot be severed without annihilating both life and awareness.

Coinciding with the first appearance of the first living mould on earth is the urge to maintain the connecting flow between the manifestations of life and their natural lawfulness by means of continual exercise. In our movements, in all Doing and Dancing, we become aware of a vital and real form, of streaming forces manifesting

themselves in the functioning of the cell-state. This awareness differs from the abstractions which the intellect makes in analysing them. The logical, ethical and aesthetic principles, which the mind receives from the feeling of unity and strength of Doing and Dancing, are of secondary and ancillary value only. The real experience is gained in its purest form and to its highest degree in the acts of Doing and Dancing. We are not capable of observing the bravery of our cells and their tendencies towards harmony in the same scientific manner as we do with happenings of our surroundings. But we can feel the stream and the might of noble intentions in the beneficent agitations of our muscles, in all kind of work, and in the joy of Dancing.

We do not know how far savages, and children in their first innocence are fully conscious of the inner urge to move in harmony with the source of life and actually with the whole of the universe. We know only that at certain stages of consciousness and civilisation, Doing and especially Dancing lose their significance as expression of an inner need, and become the slaves of more superficial considerations and desires. One of the signs of such degeneration is that man, in forgetting the primordial importance and initial strength of his personality, starts to neglect the natural laws of real and complex Doing in his work. This fact can only be explained as a misinterpretation of natural laws through the pertness of our intellect. Forgetting the real role of the intellect which consists of helping personal and collective existence, man tries to replace the wisdom of the integral cell-state by mental knowledge. Instead of co-ordinating the manifestations of his in-intellect with the Dance of the whole organism, the average adult becomes in such epochs of degeneration more and more sceptical about the natural dignity of life. He is unable to learn from the simple cells constituting his living body, because his first innocence is lost. This is the beginning of a most dramatic struggle between body and mind, which assumes sometimes the terrible form of insoluble conflicts.

In a state of recovered innocence our mind will obviously be compelled to rediscover Dancing and its intimate connection with natural Doings; but, before this stage is reached, there is a long way to go, leading through a dreadful desert of dancelessness.

There will be no familiar symbols of man's inner life in this desert. Objects and living creatures, mountains and forests with

the birds sitting on the branches of the trees and flying through the clouds will have lost their meaning. There will finally be no passion, no love, no hatred, no sin, no virtue. The controller mind which emigrates into this solitude will be bored by the matter-of-factness of all things and happenings and so also by the functions of his cell-state. He will find there one thing only, one state of affairs, which he calls motion, the well-ordered circulation of particles. The gay Dance of animals and children will give way to an abstract and icy Doing of infinitesimal sparks within nothingness. This Doing remains to a certain extent a Dancing, as through it and from it sprout glimpses of an illusionary picture of the world, a caricature of that which our senses cherish. The picture of the world which the child and the savage take for granted reveals itself to the solitary mind now as a hallucination. This is the loss of the first innocence.

To begin with the cells: the intellect declares that these common building stones of plants and animals are nothing else than a congregation of atoms. Atoms of living matter, constituting the cells, do not differ essentially from the atoms of inanimate matter. The only difference is that in living compounds the atoms of one element, carbon, play a prominent role. The atoms build up elements which compound into various groupings constituting the different kinds of matter. Atoms consist of different numbers of little sparks, called electrons, which circulate around a central spark like planets around the sun. This is the only reality of existence, the ordered circulation of tiny sparks; the rest is illusion. Between the circulating sparks is nothing: empty space. Empty space prevails to such a degree, that all the small sparks constituting the matter of an adult human body, if piled up on each other, would occupy no more space than would a grain of corn. All the rest is nothing. In the living matter of the size of a grain of corn the greatest part would consist of kinds of electro-magnetic sparks which constitute the atoms of inorganic matter and only the minutest part of the grain of corn, much smaller than the head of a pin, represents living matter, and nobody will ever know what this living matter really is.

If we accept these ideas we can only hope that the homeopathic dose of living matter has the power, whatever it may be, to conjure up all the multiple effects of our individual and social behaviour and creativeness, and with this hope we are out of the dreadful

desert of dancelessness. The size and shape of the living substance does not really matter. What matters is that this big or tiny something suffers and enjoys, hates and loves, that it builds up and destroys lives, cathedrals, cities and civilisations. Whether projected into the empty space around us or not, between the sparks of life unfold creations of man like a multi-coloured mist or smoke patterned in this spatial nothingness by the dance of life. The shapes of the dances may be pure goemetrical designs, but our imagination surrounds the objects and persons with those cherished contours which have always been familiar to us and which we hope will always remain so.

Some of the electronic dances are more lively than others and have surprising effects. Such is the dance in carbon, the element which forms a prominent part of living matter. In this element six electrons dance round an infinitely small central sun. This cotillion of six units seems to stir up the other elements with which it is mixed, so that the whole compound becomes less lazy, less stable, and more able to vary its reciprocal positions and connections. All kinds of cotillions take place in the matter of each single cell: the sparks dance duets, trios, quintets, etc. and they even perform huge ballets in groups of almost a hundred electrons. In a living body the carbonic cotillions of six electrons farandole through all the groups of cells and electrify them so that their living architecture begins finally to move itself. In a mysterious way the home of a personal volition is born.

The cells of the higher animals and therefore of man differ not so much in their external constitution as in their volition; that means they differ in their aims and in their activities which enable them to fulfil the various necessities of the bodies of which they are parts. Perhaps it should be possible for every form of volition and every idea and emotion to be expressed in some special pattern of dance movement. If so, we have a simple explanation of the use of gestures. Gestures would then be nothing but moving arabesques drawn in the air, signifying and realising intentions, volitions and feelings. Actually in his gestures man changes the positions of his body and his limbs in space exactly as in a stylised way the electrons, atoms and molecules of matter do. So also do the stars, comets, suns, nebulæ and systems of milky ways. The whole visible universe is motion, the never-ceasing transience of which contradicts all static reality.

It is clear that when investigating dance we must be keenly interested in the alarming new picture of the world which science gives us. We can, perhaps, assume that human beings when dancing have always had an intuitive notion of this dynamic structure of material existence discovered by science today. For the astonishing similarity between this vision of existence and the actual spatial feeling of a dancer is undeniable. Primitive man and a great many of our dancers and dancing children are obviously compelled by their inner urge to reproduce or to mirror with their limbs the celestial-electronic play which takes place continuously in the matter of their bodies.

Today we are able to observe a great deal of the unconscious tendencies and urges in nature and also in living beings, including ourselves. We can compare the trace-forms of individual movements with the trace-forms of electronic tracks, and find an interesting relationship between them. If we investigate the emotional and the volitional content of gestures we arrive at an entirely new angle for an approach to the mystery of Doing and Dancing. On the way to this very remote goal we must content ourselves for the time being with the clearing up of our conceptions of space, time and energy. We must try to turn to practical use the relics and ruins of the traditional view of the world. In reducing matter to a play of radiating and circulating sparks, science has, of course, abolished a great many illusions; but at the same time a door has opened for a new and simplified view of the universe. Hence it now becomes possible to understand with our intellect that old prophetic dream of mankind, the unity of mind and body. As both are one and the same motion with only slight variations we can draw a parallel between this universal happening and Dance. The hostile dualism of matter and mind can no more be taken for granted and the study of the awareness of unity in Dance gains a hitherto unsuspected reality. A great advantage is that when we rid ourselves of the mistaken attitude of dualism, we are apt to lose our haughty pre-occupation with the supremacy of the mind. We can finally restore to the mind those attributes which it possessed in its first innocence. The intellect from now on will be more easily inclined to call up and serve the hidden aspirations of that part of our structure which it has been inclined to despise and suppress. Once acknowledging the value and the dignity of its sisters, the heart and the blood, the intellect itself will be able to approach the deeper

layers of the mystery which is so obviously cared for in primitive beings and in their Doing and Dancing. It will be revealed to our reason that the tendency towards realising the lawful power of nature is clearly pre-established in all the Doings of living beings. We shall understand that the listening inside to the life of the cell-state, or perhaps to the dance of the electrons within the cells, can make us aware of the difference between harmonious and inharmonious conditions in our behaviour.

Any animal instinctively tries to remedy inharmonious states of the body-mind. There are two ways in which it may endeavour to do this. One way leads to rest or relaxation, and the other way leads to a special kind of effort resulting in motor agitation. Recurring regularly in life is the search for food and sleep. But there exists still another part of the rhythm of life: play. If reason is understood only as food-gathering and sheltering, play lacks this reason or aim. In re-installing the function of play we need not deny that the animal is structurally, perhaps, nothing else than a compound of dancing electrons. We can even see in its individual play an exact counterpart of the play of electrons spread throughout the whole universe.

No animal exists which has no knowledge of and does not make use of some kind of play profitable for both body and mind. We call this play Dancing when it takes certain rhythmical forms in organised body movement. Most of the higher animals (fishes, birds and mammals) dance. Insects and reptiles dance also. Few dances are so graceful as those of salamanders and lizards. Apes dance alone or in groups. Single movements are repeated, as if the creature would like to impregnate its whole being with the beneficial rhythms and wonderful trace-forms which emerge from the depths of its urge to play.

Sometimes the animals dance for themselves, at other times for spectators, but the urge to perform the dances seems to be more frequent than the need to see or to show them. This is not to be wondered at, for such a play helps in the first instance the connection of the individual with the source of life, and it is only in the second place a language by means of which individuals can communicate with each other. Such a play for play's sake may well be called "re-creation," a word with a serious meaning. To "re-create" is to create something afresh, something which has been lost or weakened. However, it is not a "re-creation" of the body

and its tissues, a kind of putting an engine into gear, but a re-establishment of lost and weakened relations and connections with the source of life.

When the intellect begins to understand how important Dancing is and why it is beloved by all living beings, it is to be hoped that man will find it worth while to look upon Dance with an increased sympathy. Man must be made conscientious enough to occupy himself with that means of recovery which is so cherished by living beings: with dancing.

Science avers that beside the enormous number of the most complicated regular tracts which the electrons follow in the "nothing," there exist some which are completely independent from any imaginable physical law. Electrons sometimes behave as though they make a purely personal decision as if they possess an imagination and a will-power of their own. This freedom permits them to follow their selected paths against all the laws of nature established by science. There are only two solutions to this riddle which physicists can admit; either there are some natural laws of a completely new kind hitherto unknown, or there exists (as humbler scientists are inclined to think) some designing and controlling power behind, above or within the universe which is able and willing to perform such extravagances for the sake of unfathomable purposes.

Such a purpose can be seen, for instance, in the transformation of elements into one another; an old dream of the medieval alchemists famous for their endeavour to make gold out of lead or other base material. We know today that the transformation of elements, even if not of the gold-making kind, is certainly a matter for discussion in connection with the splitting of the atom and the increase or decrease of the number of electrons dancing around a nucleus. In the case of an increase in the numbers of electrons in an atom it is as if a new dancer jumps arbitrarily into the well-established round of a group; in disturbing its order and sometimes dispersing the old group, he brings about a new grouping. A changed and entirely new series of movements might result from this accident. In physics a new element is born. Connected with these extraordinary processes are the vagabond paths which the moving particles or sparks sometimes describe. As stars in the sky sometimes leave their prescribed orbits and rush on to unexpected goals through the nothing, so do electrons. These changes

produce new formations, new planetary constellations or in the case of electrons they form new kinds of atoms. Seeing this, man began to think about the essential nature of the fundamental urge which causes these surprising irregularities observed by science. What seems to us here especially interesting is that the breaking away from a prescribed path can be regarded as a manifestation of freedom. Empty space is thus, one might say, full of a multitude of latent free paths which are waiting to be singled out as the building-stones of new situations.

This freedom is exactly what man feels when he chooses the paths and the rhythms for his movements in Doing and Dancing. He feels around him an enormous network of related tracks, from which he can choose those which he likes, those which seem to be adequate to his present purposes in Doing or which correspond to the expression of his inner agitation in Dancing. Not only is there a similarity between the intricate network of the paths of electrons and that of bodily movements, but also there is the same freedom of choice in the free use of unlimited tracks in a borderless space. No wonder that the converted intellect feels justified in assuming that all the observed happenings in physics and dancing, in cell life and thinking, are transitory stations on a mighty drive towards an ever-increasing freedom of movement and action.

Excerpts from an unfinished article on

THE EDUCATIONAL AND THERAPEUTIC VALUE OF DANCE

Let me say this at the very outset. Dance in itself, especially as it is traditionally understood in our time, has no intrinsic educational or remedial purpose. Dance is an art form which can be appreciated and enjoyed either as a spectacle if performed by a professional dancer, or as a recreational activity if performed by a layman. Why its beauty and significance are appreciated and enjoyed is a question, the answer to which (if ever given) will rarely include the mention of educational or remedial purposes. The possibility of teaching dancing, or the applied history of dance in schools, is desirable. As one of the subjects of education it can be compared with the teaching of other art subjects such as music, painting, design and modelling. Such teaching will enlarge the horizon of the pupil and will perhaps enable him to admire dances with more understanding. The adult, having enjoyed art education and thus also dance education in his school days, will be better prepared to use one or several of the arts for his recreational purposes with some taste and discrimination. The fact that dance is probably the primary art of man or even of all living beings, might give it a certain importance and preponderance over the other arts. On the other hand, the often proffered opinion that dance is the only art in which the human being is involved as a whole seems to me to be based on a misapprehension. The fact that in dancing the whole body frequently performs large and largely visible movement does not indicate at all that the whole person is involved. I have seen all too many dancers who throw themselves into the air without any sign of inner participation. On the contrary, such large movements are frequently very externalised, comparable to

hollow shells in which not the slightest indication of real life or of an integration of body and mind could be discovered.

Yet there exists a part of dance, and indeed of any artistic expression which, if purposefully applied, can have an eminent educational and remedial value. It will be rightly expected that this part of the dance consists of nothing else than visible movement, the quintessence of dance. The trouble is only that though it is very highly valued and appreciated (even in the monetary sense) it is very difficult to catch its real nature. What is the fascinating something which distinguishes the dances of a Pavlova from those of the members of her company? Why are dancers or artists of the stage or screen of equal or similar fame to Anna Pavlova so deliriously admired and highly remunerated? Is it their outstanding technical perfection? No. There exist many acrobats and acrobatic dancers who have a much more highly-developed bodily technique than those idols of the public and of theatrical managers. If you observe the Pavlovas objectively you will discover that they have a bodily mastery just above average which is often quite lopsided and conventional. Yet, they have this apparently indescribable something. The question arises: is it really indescribable? And the other question: is it a gift of nature, which cannot be acquired, regulated, increased and mastered?

We find this curious part or feature of movement in ordinary life even more frequently than in the art of dancing. Some people move with a very similar if not identical and equally indescribable charm to that of the great artist dancers. When speaking of movement we include, of course, its sources, the inner impulses and efforts which become visible in them. Ordinary people do not apply their "charming" behaviour to any acknowledged or unacknowledged stage technique. They would never dream of dancing in a ballet nor of dancing at all in the sense in which this word is generally used today. And still, I am sure, they are quite conscious of and probably cherish and love their style of movement. They even cultivate it. Now, if this is not the quintessence of dance, I do not know what it could otherwise be. Everybody who dances strives after the perfection of this something. This striving might be subconsciously and clumsily attempted. The dancer might be trapped in that kind of external skilfulness which seems to be indispensable for a theatrical career, but his guiding star is the charm of movement.

If one would call the humble striving after this radiant quality dancing, I would have to reverse my initial statement. I should have to affirm that dance has the most eminent educational and remedial purpose.

In remote epochs of the history of mankind, dance was once considered as a magic art. This was because of its inexplicable influence, both bodily and mentally, on adolescent development and on account of its mysterious effects in healing certain illnesses. Present day educationalists, addicted to fashionable intelligence tests, and doctors who believe passionately in drugs, might ridicule and despise the magic dances which are still to this day connected with the education and medicine of the so-called primitive tribes. And yet the strange power of dance survives all kinds of superstitions, no matter whether they are of magic or intellectual origin.

The re-discovery of dance as a means of education and therapeutic treatment in our time originated undoubtedly from the aesthetic pleasure experienced by some teachers, doctors and industrial welfare workers when watching performances of modern stage dance. They came to us, the modern dancers, at first sparsely, one by one, but later in increasing numbers, to ask "Couldn't you do this kind of thing with our children, our patients, our workmen?" So we did it, and with quite unexpected results. Not only did the children, patients and workmen enjoy themselves, but some of them seemed to be changed in an inexplicable manner. The headmistress of a school in which such dances had been arranged was surprised that a child, considered to be "dull and backward", suddenly became lively and interested even in intellectual studies. His sudden progress in such subjects as reading, writing and mathematics, where previously he had appeared hopeless, was astonishing.

Another remarkable fact was the improvement in the community spirit of whole classes. Cliques and solitary individuals who had hitherto been competing and quarrelling tiresomely, became friendly and social.

A further surprising effect was that the health of some of the children improved. Weaklings who had always had a horror of gymnastic exercise, and with whom drugs and other treatments had proved entirely ineffective, became stronger and more vital. Nervous children became less frightened, quieter and more open to advice and correction.

Now, this might seem to be magic so long as it cannot be explained and it took us a considerable time to investigate the rational background of such effects. But, note well, this charm works best without the slightest addition of traditional dance techniques. We have observed that an old working woman, twisted by rheumatism, can have it as well as a beautiful girl; while the latter has it perhaps less frequently than the burdened factory hand. A man can have it as well as a woman, no matter whether he is an old man or a young man. Again, it might perhaps be found in men more frequently than in women. Another point is that this feature of movement has proved to be an art, because it can be acquired, developed, regulated and mastered. The question is only how, and this is a question deeply concerned with problems which are also those of education and recovery. Education and remedial measures have a great number of common aspects. Individuals who, for some reason, lack some inner or external qualities which they need in their struggle for life, have to be provided with certain powers and functions. It is relatively irrelevant that education develops qualities while remedial measures mostly re-awaken lost qualities.

Excerpt from an unfinished article entitled

MEANING

(Basic actions, basic shapes, basic meanings of dance movement)

When we speak of the meaning of dance-movements, we do not suppose or intend to explain single dance-movements or dances by words. Many dance-movements have names taken from the technical terms of dance-teaching and others are referred to, for instance, as steps of special national dances, folk dances and so forth. Generally speaking, the understanding of the meaning of dance-movements lies in the awareness of the norm in which movement elements are compounded together in a particular dance-movement.

The main source of this awareness is the experience one gets in the performance of the movements. This experience is something which we can know and memorise, even without being able to give to each detail of it a separate name.

If knowledge is acquired in getting the feel of the movement, the memorising is achieved through repeated performance. Yet to learn a dance step mechanically does not lead to the understanding of its meaning. Something additional is needed which can best be described as the awareness of the vital flow—term of degree of confluency—of the movement. This awareness of the flow can be conveyed by a teacher. It can also be acquired through observation and imitation of dancers who master the meaning of the movement perfectly. The analysis of the constituent parts of the movement, or at least of those parts which are not immediately understood, can be helpful to get the experience of the meaning.

Verbal explanation and study of the source and purpose of a movement might be considered as a further way of perfecting the conception of the meaning of it.

In this respect, it must be realised that it is of little help to say

that such and such a movement is the expression of such and such feeling, emotion, passion or other inner activity of the dancer. Dances and dance-movement are much more linked with characteristic traits of personality than with feeling. National dances, for instance, can be of fierce, languid, fiery, proud, voluptuous, gay, melancholy, or such-like character without showing that which we generally call feeling or emotion. National dances have gained their definite shapes and rhythms because a particular configuration of movement elements seemed to correspond through a long tradition to the ideal character of the race in which they originated. Selection and filtering of movement took place which divested formerly real actions of all their concrete usefulness until a true symbolic action resulted. The final form has acquired a definite and new meaning, because we recognise it as a peculiar form of dance-movement cultivated by such and such a nation. If we say that this dance form is fierce, proud or melancholy, we do not only draw conclusions from otherwise observed qualities of the people of the country, but we see also in the peculiar combination of movement elements including rhythm, something which would be apt to awaken in ourselves a tension understood as being characteristic of a "fierce," "proud," "melancholy" or other personality.

Dance-movement goes, however, much further than words; this can be seen when we apply rather helplessly the word "fierce" for half a dozen or more dances of different nations. Each of these dances might have a quite independent form and shade of character of which fierceness or another trait of personality is perhaps the most striking general feature. Certain characteristics are often blended with others as, for instance, fierce and languid, fierce and fiery, etc. These mixtures defy any verbal description; the visible and tangible features of the movements are, however, most clearly distinguishable and make an impression and give a feeling of inner experience.

National dances offer comparisons between our experience and all that history, ethnography, anthropology and psychology tell us about the race or nation in question.

It is more difficult to discern individual dance-inventions which can be seen on the stage or with people improvising dances. The knowledge of the principal differences of dance-form combinations in national dances might offer a key in revealing some basic traits of confluency. Few people, even dancers and dance teachers, are,

however, sufficiently versed in this matter to be able to make practical use of their knowledge in the deciphering of meanings of dance-movements. Other ways must be found and can be found in the exact observation of dance-movements of whatever origin.

Modern dance, with its reference to actions, moods and shapes, elicited from the movement elements seen in work, games, sports and also in historic dances, offers a basic way.

It becomes, then, possible to seize the different meanings of different movement-combinations and to understand them even intellectually. The comprehension can be eased if the various configurations of movement elements are recorded in an appropriate notation. No further reference to verbal description of doubtful and insufficient word-substitutes from the terminology of psychology is then needed. Dance-movements will be recognised as entities of their own, while analogies or similarities with national or historical movement characteristics might still play a secondary role in their registration.

The study of the meaning of word-language and of music is a natural consequence only of the fact that all these norms belong to one and the same mind—man's mind—even if they also refer to different aspects of it.

If a word should be sought to denote the logic or harmony of movement it might be the term "confluence", because it is the peculiar form of the flowing together of several movement constituents, which gives character to any meaningful dance-movement.

Dance-movement for practical dance purposes, in education, training and performance, can find its material in an ordered description of configurative norms, which all really meaningful movements follow.

A certain similarity between the configurative norms of dance and the norms of harmony and rhythm in music exists, as well as a similarity between dance and the logical norms of thinking and speaking. Dance-logic or dance harmony is, however, a quite independent field of research and practice.

DANCE AND SYMBOL

Dance is an indulging in purely expressive acts.

The process of symbolisation is very active in dance.

If reminiscent of what has caused a great excitement, dances tend to become pantomime.

If striving to hold the mind to a celebrated event dances become ritualised.

Conventional modes of dancing appropriate to certain occasions are intimately associated with that kind of occasion. They uphold and embody the concept of the occasion and symbolic gestures emerge (e.g. death dances; triumph dances; harvest dances).

Prancing and Dancing

Dances demonstrate rather than relieve feelings. Collective prancing of primitives becomes dance when the relieved individuals fall into step and join a common pattern.

The need to demonstrate (symbolise) differs greatly from the need of relief in body activity.

Dances are performed without inner momentary compulsion; they are not self-expressive (like prancing). Dances are expressive in the logical sense. Dances are not signs of emotion, but symbols.

In denoting a feeling and bringing it to mind (even if only to the dancer himself) the dance action becomes a gesture. Gestures are abortive imitations of acts, showing only their significant features. As expressive forms they are true symbols. Their aspect can become fixed and they can be deliberately used to communicate an idea of the feelings that begot their prototypes. Because they are deliberate gestures, not emotional acts, they are no longer subject to spontaneous variations. Dance gestures can become bound to an often meticulously exact repetition, which gradually makes their forms as familiar as words or tunes.

Magic and Dance

Dances give the individual a definite orientation amid the terrifying forces of nature and society. In expressing, preserving and reiterating this orientation, dance can indeed be more spontaneously interesting and more serious than work.

The effort of primitive man to induce rain by dancing is not a practical mistake at all. These dances are rites in which the rain has a part. Man dances with rain, he invites the elements to do their part, as they are thought to be somewhere about and merely unresponsive. If the magic effect fails to complete the rite, nobody is astonished and nobody is discouraged. If heaven and earth do not answer, the rite is simply unconsummated; it was not, therefore, a mistake.

The real import of the dance is to articulate a relationship between man and nature. The metaphorical guise of a physical power to induce the rain has symbolic action value only. Ritual dance is as far removed from self-expressive bouncing as fairy tales from mere wishful imagination—for instance in dreams.

Insight into the nature of dance is not immediately applicable to the other arts, not even to its sister art, music, with which dance is so often and intimately connected.

The psychical distance produced through the transition from self-expressive prancing to symbolic dance-gesture is different in kind as far as dance and music are concerned.

Sound is the easiest medium to use in a purely artistic and symbolic way; music does not tempt so strongly to lose psychical distance, so as to be confused with pure emotional wailing.

In dance, real action, self-expression and symbolic action are a much more dangerously connected triad. There is probably a more direct projection of feelings into dance gestures than into music. Every feeling contributes, in effect, certain special gestures, which reveal to us, bit by bit, the essential characteristic of life: movement. All living creatures are constantly consummating their own internal rhythms.

These rhythms are the prototypes of musical structure. The projection of them from the basic domain of dance to another, the domain of music, gives to music already a greater psychical distance from the self-expressive act of wailing. Common are, of course, the dynamics of crescendo and diminuendo, accelerando and ritardando, which expressions are also very useful to describe the forms

of mental life. Hesitation and lack of inner determination become visible or audible by a ritardando of movement or sound.

Dynamics in movement lead also to differentiation in space, and not only as narrow and wide movement, but also in distances of greater or lesser degrees of harmony or kinship in sounds as well as in shapes of movement. The kinship of shapes of movement is a hitherto insufficiently-observed domain. The satisfaction in the connection of well-related movements and the dissatisfaction in the connection of less-related movements has a parallel in the satisfaction or dissatisfaction of performing the movement shape with certain limbs or parts of the body. The structural harmony of the body and of the shapes produced in its movements have thus not only a similarity but a correspondence to the logic of dynamics in music and is the expression of corresponding norms ruling the forms of changes and sequences of mental life.

The formal analogy between the language of musical dynamics and psychological expressions seems to have its prototype in the movements of dance.

Probably song of some kind as well as drummed dance-rhythm is older than any musical interest. For the rhythmicisation of work and ritual organised sounds might have been quite early in use.

Animals dance generally without sound incitement or rhythmicisation. Few primitive tribes dance without sound accompaniment. Self-expressive prancing and bouncing are often accompanied by shouts and cries. Dance can, however, deploy its rhythm also in complete silence.

As ritual dancing disappeared and religion became more and more bound to verbal expression, to prayer and liturgy, occupational and secular festive music became wedded to dance forms, and sacred music to the chant.

For a long time music was dependent on these two parents, dance and verse, but dance is far older than these two parent arts. Verse uses sounds and in early verse the sound part was probably more important than logical sense. Dance was surely developed to very definite rhythmical forms long before word sounds were sung to its accompaniment.

Dance seemed to be the excuse for endless sequences of silly words or simple bagpipe tunes, which latter were never performed alone. Today the roles are reversed, music and words are the excuse for dances and expressive gestures.

Later, i.e. near to our time, musical works called, for example, minuets and waltzes, "represent" dances very much as pictures represent objects. The only difference is that musical works are more abstract in this reincarnating process. We can take the music and forget the dance far more easily than we can take the painting and forget what it portrays.

For such musical works the dance is only the framework; the musical content interests us directly without knowing the "steps" or the dance content from which the tune and its rhythm took the inspiration.

Music dispenses easily with its models; this refers also to the words of verses which have served to frame a tune. Music can be performed and enjoyed alone, while the text alone, for instance, of an opera, is entirely unpalatable.

Our physical orientation in the world, our intuitive awareness of mass motion (Weight, Space, Time and Flow), restraint and autonomy, and all characteristic feeling that goes with it, are probably the pre-eminent subject-matter of the dance. Dance is in this respect most akin to the static art of sculpture.

Poetry and music, as well as painting, are formulated in very different terms.

The subject-matter of dance lies within the verbally almost inaccessible field of vital experience and qualitative thought. The comprehension of an unspoken idea is only possible through a symbol, the articulated movement, which holds the idea. The insight gained gradually, more or less clearly, might perhaps never appear in logical completeness. The structure of intellect and feeling, which we call personality, is, however, intensely enriched by the experience of creating and performing articulate gestures and movements.

A life that does not incorporate some degree of dance has no mental anchorage. The structure of personality floats unbound in either the realm of feeling or the realm of intellect.

The loss of the capacity to dance can become a most serious constraint on humanity's advance. Man cannot outgrow dancing, as he has doubtless outgrown the first manifestations of symbolic thought of rituals, myths, fairy tales and superstitions in which dancing has played such a great role.

The loss of the capacity to dance must be counteracted by a new understanding of its content and by applications of its power to contemporary situations and circumstances.

THE AESTHETIC APPROACH TO THE ART OF DANCING

Translated from the German by LENI HEATON.)

Dance takes its place alongside the two other dynamic arts, poetry and music, with a particular significance, based mainly upon the universality of its means of expression. The constant visible and tangible stir in the universe, the rhythmical power of which could be looked upon as the power of destiny of all existence, is mirrored in the movements of a single creature, and that is dance. No other art can be explained with such simplicity. There are, of course, also tensions and influences of the sphere and their radiations which form actions and relationships in our world of thoughts. The means of expression of music and poetry also belongs to the world of movement; but only in dance is the inner and outer mobility fused into one all-embracing elan.

The mighty rhythm of nature around us and the humble dance of the individual creature are closely linked by the same rule, the same fundamental form and effect. In the growth of crystals (and what is not crystal?); in the life of plants and animals; in the characteristics of whole nations and races; in the weave of boundless existence which we call the cosmos, no other driving power can be recognised but the one that also creates the dance. There are no other ways but those which are outlined in the paths and tracks of the dancing body. The infinitude of these ever-re-creating forces and shapes is immeasurable and inconceivable.

How can one approach in an aesthetic and scientific manner an art which employs such manifold means of expression; an art whose aim it is to serve joy in its purest sense, the joy of dancing; an art which does not even need a critical audience?

The dancer dances for himself, sometimes with others, very rarely for others. The latter is the professional dancer. Here, perhaps, one may be able to discern dance. But who invented the

dances of the professional? Are there composers or poets we could name? No, the dancer dances his dance to music, to a forgotten melody of a forgotten musician.

The movement, however, flows (apparently without rhyme or reason) from a very personal feeling for grace and poise. Therefore in dance there is no clear differentiation between the producing and the re-producing artist. The dancer dances music, he accompanies, enlivens, fills the music. The idea for the dance is born by music, almost as a by-product of music, which the dancer uses and expresses in his particular way. We listen to music, and if and when it stimulates us to move, we dance. Or is this perhaps only the view of an era in which the idea of dance has almost died out? Or does the idea of dance perhaps live only in the tempo of daily happenings, in the whole dynamic conception of life in our time, in the mechanism of our inventions and not in the dance of our bodies?

An aesthetics of the art of dancing, not content with the degenerative level of our arts, will contrive to discover the epochs of great dance-composers, dance-choreographers, dance-teachers and dancers. It will want to investigate if relics or seeds of a greater dance-perfection still exist. The symbols of movement speak a long-forgotten or even unsuspected language which we shall have to relearn. It is characteristic of our time that we can call the knowledge of the splendid simplicity, in which the radiations of strong vitality are manifest, our most precious experience. The knowledge of rhythmical happenings, of the harmony of movement flow, of the essence of grace, and of body-mind, can be developed greatly through research in dance. But the scientific representation of these things is still very much in its infancy because the science of dance has had to rely mostly on verbal explanations. Some dance-pedagogues and choreographers tried to notate their collected practical experiences but they could not effectively spread their findings beyond the innermost circle of pupils and experts in this field. The chief lack is of general and conclusive points of view according to which all known styles of dance could be incorporated into the great history of the art of dancing. Furthermore, the ideal role which dance and art of dancing have to play in the development of culture must be clarified in a distinct manner.

The urge to move in three-dimensional space, which finds its ex-

pression in dance, has been very much suppressed and disregarded in our age. The driving impulses which govern the urge to dance have fallen into disrepute. Instead of recognising their immense power and discovering the fundamental laws of inner harmony in this all-embracing urge to dance, and utilizing it, people put it aside fearfully, like everything else that cannot be measured by the inch or subdued by the rules of some constitution. The exact knowledge of this urge to dance, of the tensions or anticipation and fulfilment of movement which are revealed in the swings and impulses of the dancer, is naturally a pre-requisite of any scientific research into dance.

The spiritual participation in dance leads dancer and spectator alike into inner concentration. New strength and harmony, which we all need so much, flow from this experience. Dancing is a fundamental social pursuit, a life-essential factor like waking and sleeping, working and struggling.

An aesthetic cogitation of the various aspects of dance will, therefore, have to penetrate into the primary causes of life. It will be expedient to make use of the experiences of dance-training and the art of dancing in which age-old knowledge is concealed and needs only to be re-awakened.

The symbols of the various dance-notation systems which developed during the course of centuries for different purposes contain much wisdom. Nearly all characters or numbers of the many cultures are, by the way, movement symbols. Besides the clarification which could result from the study of dance traditions, I can visualise here an effective medium for the notation of dance-ideas which it would be difficult or even impossible to express in words. A significant order of numerous art-psychological and biological conditions and perceptions which other sciences tried to effect for a long time, awaits here its natural discovery.

The tensions of anticipation in stillness and the manifold tensions of actions in stir; how anticipation awakens the will to act and the will to act leads to new anticipation; how polaric forces separate from one another and re-unite; how they find symbol and fulfilment in the structure of form; how towering strength builds and destroys the moving architecture of a dance-composition; how creativeness, which is inherent in all art-activities, serves the experience of eternal values in our temporal existence and how this gives strength and regeneration; how balance and harmony between the opposing

forces of polaric energies lead to inner values; how aptitude and grace unite in nobility; how conscience and behaviour merge together; how the mysterious flow of an orphic melody touches and uplifts the core of our life; all this is contained in the gliding and surging of dance.

The roads to a new and fascinating knowledge of dance are open.

DANCE AS A DISCIPLINE

Dance can best be explained by dancing. Seeing dances with a mind opened by personal experience in dance and perhaps by some knowledge of the problems of dance is the next possibility of understanding what dance is and means. To impart knowledge about the problem of dance in words, i.e. to treat dance, if not as a science, at least as a discipline is a third possibility. This is much more difficult to do with dance than with any other human activity. This is so because dance-thinking, or the thinking connected with movement, is almost diametrically opposed to ordinary thinking, thinking connected with words. This is why so little literature about dance exists. Furthermore there exists no generally accepted grammar of dance which could be the rational basis for the discussion of dance. Some people might assume that it would be a pity to rob dance of its spontaneity in establishing a kind of grammar of this ephemeral art.

The sister-art of dance, music, has, however survived the fate of having acquired its own rules of grammar. A basis of the examination of the means of expression of music lies in the science of acoustics.

This science tells us that in hitting a drum, striking a string, blowing a trumpet or playing on any other instrument, the material of which the instrument is made is set into vibrations. The vibrations are imparted to the surrounding air and enter our auditory organs in the nerves of which they are felt as sounds. The pitch of a sound depends upon the number of vibrations during a time-unit, i.e. a second. Higher pitches are felt in connection with vibrations which are quicker or more numerous than those of lower pitches. All sounds of music originate thus in some kind of human body-movement. But musical sounds or tone-vibrations are (except in singing) always elicited from instruments. Dance needs, like

singing, no other instrument than the human body. The human voice-organs, looked upon as instrument, have a great resemblance to a trumpet and their function can, therefore, easily be compared with the function of other bodily instruments. At the first glance no physical basis seems to exist which could help us to investigate dance from a purely scientific point of view. I think many people will be surprised that the solution of this problem is in reality most simple. The human body is, as an instrument, nothing else than a complicated system of cranes and levers of various extensions. The science of anatomy has discovered this fact long ago in one of its branches, movement-anatomy. All the trials which have been made to give to dance a grammar of its own have taken the fundamental findings of movement-anatomy into consideration. In comparing movement-anatomy with musical acoustics we can easily detect some parallels. Acoustics deal with the diversity and the properties of audible vibrations in general, and musical acoustics especially with the peculiarity of sounds or tones to manifest degrees of kinship which we hear and feel as consonances and dissonances. Movement-anatomy deals with the diversity and the properties of levering processes as occurring in the human body, and a movement-anatomy of dance will be correspondingly interested in that kinship of levering processes of the body which play together harmoniously in contrast to those which disagree with each other. The gracefulness and clumsiness of combined levering processes of the body play the same role in dance as harmonious and disharmonious tones in music.

But music is not a chemistry of well-selected acoustic tone-pitches only, nor is dance merely a combination of well-selected levering processes of the skeleton. One additional element which music and dance have in common, and which can be at least partly scientifically investigated, is rhythm. Rhythm can be rationally best explained as an alternation of stresses or more intensive effort-qualities with less intensive ones during the production of subsequent tones or leverings. It may be noted that it is the rhythmical dance of the voice or sound-producing movements of the musician which give the music its rhythm.

The difference between the two arts, as far as physical factors are considered, is only that the musician stresses certain acoustic pitches of tones which he estimates to be important for that which he has and wishes to express in his tone-poems; while the dancer

stresses levering-processes of the body with the help of which he wants to render prominent his levering poem.

It is, without doubt, risky or at least crude to call dance a levering poem, but we do not get far if we start with sentimental considerations when putting up principles. This crudeness can, to a certain degree, be lessened if we call the connecting thread of acoustic pitches melody, and the connecting thread of levering acts—what? The trouble is that there exists no collective noun conveying for the lines of movements the same thing as "melody" for the lines of sound waves. It seems not to have occurred to anybody hitherto that lines in space, and especially lines or tracks written in the air by dance movements, might need a name. Although we are charmed by these movement-arabesques, or find other lines of movement unattractive, we have not, up to now, developed any terms for them.

In investigating the difference between music and dance a little more closely we will see that the neglect to christen the pleasant and unpleasant arabesques written in the air or on the floor is not as astonishing as it might appear at first sight. In observing the great manifold of dances created by different human individuals and races we will find that the stress of dance does not lie so much in its aerial designs of gesture-melodies, as in the sequences of effort-qualities which are clearly represented by the rhythm of movement. Music, however, especially in its European forms, and in the singing of all races, points rather to a stress of the melodious line than of that of rhythm. To call dances "effort poems" instead of "levering poems" is perhaps not much more euphonious, yet it comes nearer to the truth; not always, however, because the famous "nautch" dances of East Indian women, for instance, are in their undulatory character clearly space-melodies. There exists also in the modernised European ballet a great tendency to emphasise the space-melody of levering sequences and to give rhythm a more secondary importance.

So far we have dealt with the mechanical basis of dances only. If we consider them as "poems" they should have also a certain meaning or content. The usual answer to the question of what is expressed in music and dance equally will be, without any hesitation, that both are expressing feeling, emotion and perhaps sentiments. Some people will say that ballet is a kind of dream representation without words, which requires the ballet-dancer to per-

form actions. Therefore he might be considered as a variation of the actor; a mute actor. To a certain extent this is true. Ballet is a theatrical art, using all the means of scenery, costumes, orchestral music, colour and light which are the indispensable attributes of drama and opera. Dance is in ballet only one of the means of expression, dramatic action being a second one and music a third. Ballet is not a pure representative of dance. In eliminating the action element we seem to be really reduced to the statement that some representation of emotional life is the main scope of the art of dance. The fact is, however, that we are facing here again an unnamed child of human imagination and expression. Very many dances are not emotional at all, even if they awaken emotions in the spectator. The dancer himself is carried by an inner drive, which has absolutely nothing to do with anything even resembling emotions. Take, for instance, acrobatic dances, which might evoke an emotion of awe for the courage shown by a human being, and perhaps also for the miraculous flexibility of his body. But it is courage and flexibility which are shown and not the emotions possibly connected with it.

The ideas expressed by dance belong to a stratum of the human spirit which should not be labelled as emotion. It is a falsification of a fact, resulting from a lack of collective nouns in our word-language for dance-forms and dance-contents likewise.

Music or tone poems are to a great extent, perhaps, dealing really with emotional contents. The effort-poems of dance have mostly other contents. One would be tempted to say that dance reveals a vision of a perfect human existence which is not depicted as residing inside in the realm of emotions only, but also outside in somehow sublimated and real bodily-mental existence. To find a word for these contents of dance, a word so simple as the word "emotion," might be perhaps a task for coming generations (if these generations care more for dance than past generations did). All we are able to do today is to clear the ground and this can best be done here again by comparing the corresponding features of music and dance, this time not so much in respect of the means of expression, as in the use of this means in building up the practical content.

In music the effort-accent is entirely separated from and independent of the melodic line, that means the musician can put his accent where he wants in any melodic or harmonic configuration.

In dance certain configurations of space-lines are connected with certain effort-qualities which are essential and unavoidable if the body follows harmonious space-shape. A rhythmical accent can, of course, also be added in dance to the natural accent even in places where it is not needed bodily; so also can the essential shades of effort be veiled or hidden through some trick of body skill. But the displacement of the natural effort nuance will be felt as disharmony or over-accent in dance. On the other hand, form is not bound to accent; it is only the accent which is bound to the performance of certain forms. The accent (effort) is not inherent in the form (direction) but in the body, performing this form or this or that direction.

In music both accent and form are free in the execution also, because the body does not play here such a great role as in dance. A well-trained body will be much freer to resist the effort-demand of a form (direction). It will more easily be capable of approximating to what we might call musical demands.

The performing arts of music and dance like to play as freely as possible with the combinations of arabesques and accents, this being an important means of expression. A dancer will often try to illustrate his effort-poem with impossible space arabesques and leverings. This makes the dance mysterious and non-banal. The binding of effort to certain body-space situations shows too much natural material dependence to impress both the spectator and the dancer himself. It is, therefore, necessary to get a technique of absolute freedom from any such ties.

On the other hand a certain impression can be experienced (and given?) if the body follows body-space evolutions with an exactly natural effort. (Natural beauty). There will be two schools of effects. The free one will be more easily adaptable to freedom in the use of accent and form as in music. (Free here is technically overskilled like ballet). The bound-natural one will be in reality the dance without music (or with percussion, following or counterpointing the natural effort-boundness of movement created from the inter-relation of accent and form).

One feature, the more or less regular alternation of stress and relaxation, will be always present (also in music) because of the bodily handling of the instruments. Fatigue of continuous stress, or sloppiness of uninterrupted relaxation will otherwise impede effect.

Effort-poems as demonstrations of effort-variations can be read (unconsciously) by the spectator. The main thing is, however, that they should have a sense and a development towards harmonisation because in dance we attempt to represent our vision of desirable effort-combinations in a perfection rarely reached in practical life.

There is no emotional content needed, because this representation will not show emotions but rather ethically desirable values of inner attitudes; the perfectly harmonious man or, as a contrast, the abysmally grotesque man.

Effort poetry as such is not yet discovered or acknowledged. We lack even one single word to express that which is shown in this kind of movement poetry.

It is a higher degree of consciousness which finds out these combinations of ethical situations and elicits them from the sphere of values. The question, whether the sphere of values really exists or whether it is not discovered, i.e. actually entered but only invented and built up by man, is a very important one. Conscience and similar inner attitudes seem to show that this sphere really exists outside man's personal configuration. If that is so, this would be a big discovery.

To argue about it would only be possible in the form of the study of movement, or of movements, especially of effort-representations. This is the real discipline of dance in which primitive man excelled. Either the sphere of values itself, or the capacity of men to build it up was discovered and cultivated ages ago. All our ethical ideals and ideas originate from the cultivation of movement by our ancestors.

This has partly to do with religious visions of perfect and more powerful beings. But these beings as well as the whole sphere can be inventions. A realistic outlook upon man as an imperfect animal but nevertheless the most complex creature on earth (i.e. no other higher being exists), does not contradict the existence of a sphere of perfect efforts which have none other than exemplary influence on our imitatory sense.

To demonstrate graphically in nature the presence of a sphere or rule of harmony is very near to representing the real existence of an ethical sphere of values. In any case, if the longing (and conscience) were a pure invention of man, he would be a terrific being, of superanimal and supernatural dimensions, able to create a world

which does not yet exist for itself by direct effort of nature. This faculty contradicts all that science teaches. The 'either—or' is interesting, and a field to which dance research could bring revelations.

Either: man is a being inventing and creating new worlds which are not fantasies only because they influence his behaviour and life.

Or: man is a visionary who sees into the hidden realms which exist outside the world of his more real senses.

A third possibility is that man is the collaborator of nature which is in her birth-pangs to create or bring forth this new world, or ethical sphere, which man sees already before she has achieved it. In any case it is the effort-poetry of dance which opens the gates to the new-coming or hidden or planned or man-invented world or sphere of values. And effort-poetry should be cultivated as a means of making possible the easier perception of the facts connected with these visions and of clearing them up to a definite certainty about their nature.

To explain all this as a sublimation (or madness) of sexuality, hunger, power, etc., is of course possible. But then these would gain such a super-beauty of flowering that our actual evaluation of them would seem to be rather poor and miserable. If the wish to be more beautiful (perfect human being) true, just, good, etc., is really only a prelude of effective multiplication or enlargement of individual power, then we must adore this divine madness as the highest flower of nature. To despise it and to think it only a reducing, intoxicating product of an ill-fantasy to which we should not succumb, shows such a lack of taste for liveliness and a disgusting veneration of negativity and of death and annihilation that such beings thinking in this way had better not be born.

Tricks of the veil of Maya* cannot be deciphered by the brain alone. The united rule of harmony appearing everywhere from the form of crystals to the drives of man, reveals itself as a rule of dance which might be taken as the messenger of certainty about those questions of a beyond, which if not solved, torture our soul and distort our life.

---

* *"The veil of Maya": the illusory outer world of external appearance, which veils the inner world of true reality.*

THE RHYTHM OF LIVING ENERGY

A living organism is the most perfect engine we can imagine. A healthy organism living under favourable conditions does not dissipate any, or only very little, energy; energy is all or almost all utilised. The slight loss of energy is continuously restored through special functions of the engine itself. Having performed an operation connected with loss of energy, the living engine reverses the operation and functions now as a pump bringing in fuel or other ingredients needed for the restoring of energy. Besides this regenerative capacity the living engine has a further possibility of counteracting the destructive effects of ill-health or of noxious influences of unfavourable conditions. It is able to procreate new engines of similar kind replacing those which have succumbed in the struggle of work.

Species of living organisms have died out, probably because of catastrophic changes in the surroundings, to which the special kind of living engines could no longer be successfully adapted. This larger issue lies, however, beyond the scope of the present investigation, which endeavours to throw a light on the optimum function of one special kind of living engine, the human organism.

The innate tendency to live, to preserve life, to regenerate, to procreate and to care for the growing child is so strong in man, that he naturally abhors killing a member of his species. He also abhors putting his fellow human beings into conditions in which they are unable to recover lost energies. This tendency is a part of the function of living energy.

A conflict arises between this fundamental abhorrence of killing others and the urge of an individual organism to keep alive for himself; a conflict which can be extended in protecting an individual's family, his friends, his clan, etc.

In order to keep himself alive, man kills animals and plants with-

out any deeper repulsion. He has, however, enough awe for living energy to abstain naturally from wanton destruction of any kind of life.

He condemns the lack of respect for life in his fellow-beings and this condemnation goes so far that he feels compelled to annihilate the transgressors of this basic rule of living energy. The conflict into which this defence of life brings him is not very different from the conflict of killing or damaging life in other cases of self-preservation.

Besides the conflict on the negative side of life-preservation there exists a conflict of a more positive character. Man has not only the tendency to live and to let life grow as well as it can. He has a marked tendency to help with his actions and operations in order to preserve and to enrich the living energy of his surroundings.

Such action involves exertion. A certain degree of exertion can surpass man's own regenerative capacity. The examples of disregard for personal life and health in order to safeguard the life and health of other human beings or even of other than human living engines, are so numerous that any argument about this point seems to be superfluous. (*Note:* It must be mentioned that the reverence for life seen in the care for descendants and in the help for the preservation of the life of fellow-beings, even if they are not of the same species, is not restricted to the human race. Few animals kill without the need of hunger or self-defence, and many animals sacrifice their lives in order to save the lives of others).

If the exertion caused by a helping action surpasses natural regenerative capacity, we feel compelled to try to do our best to improve the conditions of regeneration. It is of no use to regard the complications of life in a human community as artificial or unnatural. They have grown from nature and are growing within nature so that we have to accept them and make the best of them as of all conflicts occurring in life.

It is, however, clear that the natural capacity of regeneration deteriorates with the increasing complications of civilised life. Counter-measures are needed in order to keep the balance. The most necessary counter-measure might perhaps consist in making the facts of living energy and of its preservation more conscious, and at the same time more deeply felt. This is a tremendous task for coming generations. All that we can do now is to initiate the

processes in describing the findings of science (including moral science) about our urge and our capacity to protect and to preserve living energy.

The special scope of this paper is to introduce a new view-point into the research concerned with living energy.

Life, like all the other phenomena of nature, has a rhythm. That means that there exists a proportional relationship between the contrasting facts and parts of life. One of the most interesting sections of natural rhythmicality is that between effort and recuperation in living organisms. Everybody will agree that the study of this subject might be able to contribute to a better mastering of the regenerative possibilities for the individual as well as for communities.

Without arguing about the causes which have implanted in our organism the urge to safeguard living energy, we can come to an awareness of the mode of the functioning of this urge which will help us to deal with difficulties and conflicts arising from the inevitable fact of its existence.

WHAT IS RHYTHM?

It can be said without exaggeration that a well-rhythmicised energy involves a spending of effort connected with intelligence and goodwill.

The exclusion of those forms of the flow of energy which are non-rhythmical, i.e., of the flow of energy the parts of which collide and struggle in a destructive and dissipating sense, is the aim of any rhythmical education.

The term 'rhythm' should be used in this new sense only. It is a bodily and mental skill to use rhythm rationally and with goodwill. Energy in itself is eurhythmical but its use can be perverted.

An uncontrolled maze of contrasting tendencies has no real rhythm. It can have, perhaps, a dead and stable regularity or it can have a chaotic avalanche-like precipitation and might, therefore, have a most exciting influence upon sensations. But the name 'rhythm' cannot be given to it because there is no real rhythmical order. The old Greeks used the expression of "kakorhythmy" for the irregular dissipation of energy. That means in reality lack of rhythm.

The various uses of the word 'rhythm' are circumscribed in the following associative contrasts:

Rhythm as:

Duration		
Definite	—	Indefinite
Repetition		
Measurable	—	Immeasurable
Change		
Stable	—	Mobile
Habit		
Regular	—	Irregular
Symmetric	—	Asymmetric
Pleasure		
Quieting	—	Disquieting
Energy		
Stagnant	—	Flowing

OUR MENTAL-MOTOR SITUATION

It is essential for the liberation of human nature from the yoke of misleading illusions and prejudices to become thoroughly acquainted and familiar with the rules of motion governing the universe and so also human life.

The best way to study motion is to train the capacity to observe man when moving. In working, in doing things consciously as well as in the abandon of relaxation, recreation and in the more or less uncontrolled expression of his passions, thoughts and feeling, man uses a great series of movements, which are only partly observed and investigated.

Nobody seems to have a clear idea as to how far and in which way all these motions are connected with each other and with what we call our inner life. We speak about movement habits arising from certain occupations or pre-occupations, but we do not know if and how far pre-occupations can arise from movement habits.

All that we can claim in this field is that the training of certain movement capacities, whether in life, i.e., work, or through artificial exercises, can further our physical health in keeping the body elastic and functioning well. Some people give training credit for a part of mental or nervous fitness as well as for promoting health and well-being. They say man becomes happier, gayer and more content if his body or his organism is functioning well.

I think that this credit is far too small. We know too little about the real nature of motion, and especially about the motoric

force filling the universe, in order to understand the great importance which the natural rules of motion play in all the manifestation of our whole existence and so also in what we call our inner life. It is a minimal part of our mobility of which we are really aware, and to which we refer in speaking about the connection between bodily movement and mental or psychic motor phenomena. The most easily observed part of human (or animal) mobility is a macro-mobility in contrast to the less easily observed micro-mobility within the smaller parts and elements of our organism. There is no real boundary between these two mobilities; our mobility is one and indivisible and has throughout the same character, and follows a unique line of rules which conform to atomic or astral movement as well as to crystallisation, organic growth and inner life and consciousness.

Our body together with our nervous system and all its manifestations in thought, emotion and will is in itself nothing else than a motor-process.

The apparent stability of our outer form is due to two factors. One is that the continuous changes are partly too quick and partly too slow to be easily observed. The other factor is that each individual lives as the variation of a definite generic motif from which he can deviate only to a certain degree. This motif has a racial as well as an individual side, i.e., the individual motif is in itself again only a slight variation of the generic or racial motif.

The clear view of this fact and of the distinction between macro-mobility and micro-mobility is hampered by the restricted capacity of our movement observation. As long as the spatial extension or the velocity of a movement is concerned, we understand this restriction very well. We know today that there exist physical motions which are too small to be seen with the naked eye. Man has created the microscope and the microphone in order to catch a part of these minute vibrations and locomotions. Yet another characteristic of movement, its rhythmicality, is no easier to survey because of the differentiated degrees of complication in which the single rhythms are mixed. The question of how to enter into the domain of micro-mobility and multi-rhythmicality is not yet even raised and, therefore, very far from a definite solution. We have but the roughest conception about rhythm in general and in this conception the notion of recurrence in time is so prevailing that we overlook all the other rhythmical implications. It is true that

repetitions of movements or motions of similar character attract our curiosity and give scope to a primitive distinction between certain kinds or types of movement. In recognising the repetition of the same thing, we are obliged to give to the thing which recurs as well as to the cyclic friction itself some primitive names. We are, however, far from an exhaustive terminology of kinetics and rhythm.

Few motions have so far received names which refer to the deeper aspects of the problem of mobility. Motor words refer in general to the most evident kinds of macro-mobility and to extremely simple rhythmical rules only. It is, therefore, difficult to speak about movement because its phenomena are almost nameless.

Instead of trying to find a simple expression for the complications of motor-differentiality, the spirit of man has chosen to invent a flourishing imagery in which fabulous sentiments and grotesque abstractions veil the origins as well as the issues of facts of natural mobility.

The inextricable network of superstitions and misinterpretations which so arises is not less amazing and unreal than primitive tribal mythologies. The unbiassed student of mobility will soon realise that the increase of inner health and balance which accompanies the improvemnt of organic functions through motor training is due principally to a simpler and more natural relationship of the training person to motor-happenings in general and to personal mobility in particular. Caring less for the abstractions and symbols of our strange motor-interpretations through mythologic and psychic words and categories is without doubt a characteristic of kinetically and rhythmically well-developed persons. Those who choose to study and to cultivate bodily movement are not infrequently accused of mental weakness or stupidity. It is not even suspected that such persons are dealing with an art of living, the complexity of which has simply no names, no fixed terminology, and that they are, therefore, unable to speak about their experiences other than with movements.

I think we should create a language of movement, i.e., we should become more conscious of that great kinetic and rhythmical language which fills the world and our own existence.

There are signs of a growth of our motor intelligence in our time and we might, perhaps, soon be able to deal directly with the

problem. For the great majority of people it remains, however, necessary to content themselves with such circumscriptions as of our motor situation as have been attempted in these lines.

WASTE

(Fools are struggling—wise men are dancing).

The difficulty in determining waste consists primarily in the fact that certain parts of a procedure or action are considered by some persons a necessity, whereas others consider these superfluous, unnecessary and even an evil use of energy or material. The first type prefers a certain lavishness and richness of accompanying conditions, not only as fully justified but also as advantageous for creativeness. The other type has a more orderly and puritanical view about the use of available means and conditions; this type feels or estimates that a certain poorness and restriction is the best school for righteousness. It is, therefore, a question of temperament and also a question of public opinion which, as history shows, swings from one extreme to the other.

There are no definable boundaries between these two opinions or temperaments. An infinite gradation between *laisser-faire* and restrictive control exists and any of these degrees can become the leading characteristic of an epoch. Men who have an individual inclination to the degree in vogue will become powerful. Yet there is always in any special degree a main or prevailing tendency towards one pole or the other, so that an orientation along the line of degrees towards one of its ends can be observed.

Changes are made: (*a*) in increasing the tendency of the moment, e.g., in becoming always more lavishly wasteful or restrictedly bound;

(*b*) in reversing the present direction into an orientation towards the contrary pole.

There is a curious point in these oscillations. The people orientated towards lavishness will always stress the point that nobody is entitled to judge where wastefulness really begins.

Their opposites, the people orientated towards restriction or spartanism, will find that there are real criteria for determining the point at which wastefulness begins.

It is true that this point is always a more or less arbitrary choice and nobody has ever succeeded in fixing a generally acceptable view about the criteria of wastefulness. What one person thinks to

be desirable or even absolutely necessary can be in the eye of his neighbour the most inexcusable extravagance.

This does not refer to the general line only but extends to all the details of life.

Richness in certain aspects of life seems to be indispensable even to the puritan, and the more lavish man can find that he is a pure spendthrift in this domain. Similarly the lavish find restriction in some things natural, on which the puritan estimates freer spending absolutely necessary.

Doubtless the balance of these last-mentioned differences of opinion has a special characteristic in the facts that:

(*a*) the lavish is lavish in material goods and even in energy, while he is not so convinced about the desirability and necessity of the refinement and possession of what we might call inner or non-material goods (except what he means by "freedom").

(*b*) the puritan tends to restrict material possession and refinement and mostly endeavours to keep his inner life at a high standard, renouncing hereby, however, what the lavish one calls "freedom."

He is neither more nor less a "slave" (of self-imposed regulations) than the other (being a slave of his desires).

It seems to be almost impossible to reconcile these two views and to abolish thus the source of the greatest waste of material, energy, and inner value, resulting from the incessant struggle of the two parties or tendencies.

A harmonising education which consists not only of enlightenment and verbal instruction but which makes each individual able to balance the intensity of these contrasting streams (closely resembling flood and ebb), could have a soothing influence on the seemingly inevitable struggle.

It is this power of balance which has been found in the arts and especially in active dancing to be so effective that the regulation or mastering of movement has been accepted through enormous periods of civilisation as the basic means of education and the most desirable form of recreation.

Dancers are always searching, even if often unconsciously, for this balance.

PROPERTY OF THE
LIBRARY OF THE

FEB 15 1960

WOMAN'S COLLEGE
UNIVERSITY OF NORTH CAROL

PRODUCED BY WERNER STUDIOS, 40, HAZLEWELL ROAD, S.W.15
AND PRINTED IN GREAT BRITAIN BY SALTER & CO. (PRINTERS) LTD.